

REMARKS

Claim 15 has been canceled. Claims 9 and 16 have been amended and now include the subject matter of canceled claim 15. Claims 9 to 14 and 16 are pending.

Claim 16 stands rejected under 35 U.S.C. § 102(b) as being anticipated by French Patent Application No. FR 75 24147 to Henry et al. ("Henry") in view of United States Patent No. 5,343,070 to Goodrich et al. (Goodrich).

Claim 16, as amended, recites that a semiconductor component includes metal layers that are applied to the first layer and the third layer. Applicant submits that neither Henry nor Goodrich teaches an application of metal layers to a first layer and a third layer of a semiconductor component.

Henry states that a diode includes a surface 30 and a side opposite surface 30 that are metallized during a wafer finishing step which involves protection of projecting surfaces 31, 32, 33 from metal deposition. Page 3, lines 6 to 14. The diode described by Henry is configured to have a first layer and a third layer that are metallized during a wafer finishing step and does not include metal layers that are applied to the first layer and the third layer. In Henry, the existing layers are themselves metallized in contrast to the feature of applying additional metal layers, as recited in claim 16.

Furthermore, Goodrich states that a diode includes "a substrate having N-type conductivity upon which is deposited an intrinsic material layer" and "[a] junction having P-type conductivity is formed in the top surface of the intrinsic layer and has a predetermined area that is smaller than and may be, preferably, essentially half the area of the top surface." Col. 2, lines 43 to 49. The diode described by Goodrich does not include metal layers that are applied to the first layer and the third layer.

Therefore, in view of this discussion, Applicant submits that claim 16 is patentable over the combination of Henry and Goodrich.

Claims 9, 10, and 12 to 14 stand rejected under 35 U.S.C. § 103(a) as being obvious over Henry in view of United States Patent No. 4,220,963 to Rummenik ("Rummenik") and Goodrich.

Claim 9, as amended, recites that a method for manufacturing semiconductor components includes the application of metal layers to a first layer and a third layer. Applicant submits that Henry, Rummenik, and Goodrich do not teach that metal layers are applied to a first layer and a third layer.

As discussed above with the § 103(a) rejection of claim 16, Henry pertains to a diode that includes a surface 30 and a side opposite surface 30 that are metallized during a wafer finishing step. Page 3, lines 6 to 14. Also, Goodrich pertains to a diode that includes “a substrate having N-type conductivity upon which is deposited an intrinsic material layer” and “[a] junction having P-type conductivity is formed in the top surface of the intrinsic layer and has a predetermined area that is smaller than and may be, preferably, essentially half the area of the top surface.” Col. 2, lines 43 to 49. Additionally, Rummenik states that “an N-type wafer is provided with two P-type diffused regions on the opposite surfaces of the wafer to define a remaining central N-type region which is extremely thin”. Col. 1, lines 41 to 46.

Therefore, in view of this discussion, Applicant submits that claim 9 is patentable over the combination of Henry, Rummenik, and Goodrich. Claims 10 and 12 to 14 depend from claim 9. Accordingly, claims 10 and 12 to 14 are not rendered obvious for at least the reasons given for the allowability of claim 9.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being obvious over Henry, Rummenik, and Goodrich and further in view of United States Patent No. 5,985,067 to Schmid et al. (“Schmid”) or alternatively over Henry in view of Rummenik and Goodrich.

Claim 11 depends on claim 9. Consequently, all claim limitations of claim 9 of the present application that Henry, Rummenik, Goodrich, and Schmid do not teach or suggest (as discussed above in connection with the § 103(a) rejection of claims 9, 10, and 12 to 14) are also not taught or suggested with respect to claim 11 of the present application. Neither Henry, Rummenik, Goodrich, nor Schmid teaches a method for manufacturing semiconductor components that includes the application of metal layers to a first layer and a third layer. Accordingly, claim 11 is not rendered obvious for at least the reasons given for allowability of claim 9.

In view of all of the above, it is believed that the rejections of claims 9 to 14 and 16 have been obviated, and that all of claims 9 to 14 and 16 are allowable. It is therefore respectfully requested that the rejections be withdrawn and that the present application issue as early as possible.

Respectfully submitted,

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